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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,421	11/05/2001	Zvi Slovin	233-93	3356
23117	7590	06/28/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			ROBERTS, BRIAN S	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/857,421

Applicant(s)

SLOVIN, ZVI

Examiner

Brian Roberts

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/04/01 & 11/05/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-12 have been examined.

#### ***Specification***

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

3. The disclosure is objected to because of the following informalities:

- "400, 420" in Fig. 21 are not described in the specification
- "510, 520" in Fig. 22 are not described in the specification
- "600, 620, 630" in Fig 23 are not described in the specification
- "800, 810, 820, 840, 850, 860, 880" in Fig 25 are not described in the specification
- "900, 910, 920, 930, 940" in Fig 26 are not described in the specification

Appropriate correction is required.

#### ***Claim Objections***

Claims 1, 3, and 12 objected to because of the following informalities:

- The applicant refers to a second plurality of transmitters without introducing a first plurality of transmitters
- The applicant refers to a third plurality of transmitter subsets without introducing a first and second plurality of transmitter subsets

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The examiner recommends eliminating first, second, and third from the claims and simply refer to “a plurality of channels”, “a plurality of transmitters”, and “a plurality of transmitter subsets”. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “dropout transmitter” and the step of “releasing a dropout transmitter” are unclear and are not defined in the specification.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Katzela et al. (Katzela)

- In reference to claim 1

Katzela teaches a method of Hybrid Channel Allocation that includes:

- Defining a cell (transmitter subset) that contains a base station and wireless terminals (transmitters) (page 11 column 2 paragraph 2)
- Dividing the total number of channels into fixed and dynamic sets, assigning a number of channels from the fixed set to each cell (page 21 column 1 paragraph 3)
- Sharing the dynamic set of channels between all cells (page 21 column 1 paragraph 3)

- In reference to claim 2

Katzela further teaches channel reuse of the dynamic set that allows a first transmitter and a second transmitter to share a same channel given the cells are separated by a minimum channel reuse distance. (page 15 column 2 paragraph 5)

- In reference to claim 3

Katzela teaches a method of Hybrid Channel Allocation that includes:

- A wireless terminal (transmitter) in a cell (subset of transmitters) that has been assigned a number of channels from a fixed set of channels transmitting using a channel assigned to the cell if available (page 21 column 1 paragraph 3)
- Otherwise; the wireless terminal transmitting over a channel from a dynamic set of channels if available (page 21 column 1 paragraph 3)

- In reference to claim 4

Katzela further teaches dividing a given radio spectrum into channels using frequency division. (page 10 column 2 paragraph 2)

- In reference to claim 5

Katzela further teaches dividing a given radio spectrum into channels using code division. (page 10 column 2 paragraph 2)

- In reference to claim 7

Katzela further teaches wireless channels from the radio spectrum. (page 10 column 2 paragraph 2)

- In reference to claim 8

Katzela further teaches a distributed dynamic channel allocation method where a base station (subset master) in a cell (subset of transmitters) dynamically allocates a channel to a wireless terminal based on the current available channels in the cell's vicinity or signal strength measurements. (page 16 column 2 paragraph 3)

- In reference to claim 9 and 10

Katzela further teaches that each base station (subset master) keeps information about the current available channels, in the vicinity. The channel pattern information is

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updated by exchanging status information between base stations (subset masters).

(page 16 column 2 paragraph 4)

- In reference to claim 11, as best understood

Katzela further teaches a method of intercell handoff due to radio link degradation where a wireless terminal switches between a first cell (subset of transmitters), radio channel and base station (subset master) to a second cell (subset of transmitters), radio channel and base station (subset master). (page 22 column 2 paragraph 4)

- In reference to claim 12

Katzela teaches a Hybrid Channel Allocation system that includes:

- Defining a cell (transmitter subset) that contains a base station and wireless terminals (transmitters) (page 11 column 2 paragraph 2)
- A base station (channel assigner) to allocate a channel from a pool of channels to a plurality of wireless terminals in the cell (transmitter subset) (page 11 column 2 paragraph 2) (page 16 column 2 paragraph 4)
- Dividing the total number of channels into fixed and dynamic sets, assigning a number of channels from the fixed set to each cell (page 21 column 1 paragraph 3)
- Sharing the dynamic set of channels between all cells (page 21 column 1 paragraph 3)

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katzela et al. in view of Gudmundson.

- In reference to claim 6

Katzela et al. teaches a system and method that covers substantially all limitations of the parent claim.

Katzela et al. does explicitly teach the channels being CDMA channels.

Gudmundson teaches CDMA channels in a mobile communications system with cells and base stations. (abstract)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of Katzela et al. to include CDMA channels as taught by Gudmundson because CDMA is a transmission code that allows the radio spectrum to be divided into a plurality of channels for use by a plurality of users.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:



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- Carney (US 5697059) teaches a cluster controller to dynamically allocate channels among base stations.
- Eswara et al. (US 6219554) teaches a system and method of dynamic frequency allocation.
- Rappaport et al. (US 5437054) teaches a wireless communication system and hybrid channel assignment method.
- Eriksson et al. (US 5448750) teaches a method for adaptively allocating channels for connections between base station and mobile stations.
- Cheng et al. teaches a Grouped Hybrid Channel Assignment for a cellular mobile communication system.
- Sin et al. teaches a hybrid channel assignment scheme for a cellular communications system.
- Kahwa et al. teaches a hybrid channel assignment scheme in a large-scale, cellular-structured mobile communication system.
- Yue teaches a hybrid channel assignment scheme in a cellular mobile radio communication system.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 8:30-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BSR  
06/16/2005



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